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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/830,111E

DATE: 12/06/2003

TIME: 10:42:19

Input Set : A:\21581-265.seq.V3.ST25.txt
 Output Set: N:\CRF4\12062003\I830111E.raw

3 <110> APPLICANT: Kaneka Corporation
 4 Matsuda, Hideyuki
 5 Kawamukai, Makota
 6 Yajima, Kazuyoshi
 7 Ikenaka, Yasuhiro
 8 Hasegawa, Junzo
 9 Takahashi, Satomi
 11 <120> TITLE OF INVENTION: Process For Producing Coenzyme Q10
 13 <130> FILE REFERENCE: 21581-00265-US
 15 <140> CURRENT APPLICATION NUMBER: 09/830,111E
 16 <141> CURRENT FILING DATE: 2001-07-23
 18 <160> NUMBER OF SEQ ID NOS: 9
 20 <170> SOFTWARE: PatentIn version 3.2
 22 <210> SEQ ID NO: 1
 23 <211> LENGTH: 1653
 24 <212> TYPE: DNA
 25 <213> ORGANISM: Saioella complicata
 27 <400> SEQUENCE: 1
 28 ttttgtggg tcgaaaagtc ggcacgggtg caggttcggc tttagagaccag taaaggctcg 60
 30 gagattgagt tcaggacaaa gctttgatcc gtgaggtcta catcttcagc aaatcatttc 120
 32 aaatccatat accatggcct caccagact gcggatacga agcatca gtcgatcaat 180
 34 cgcctctctg cgatcggtta ccctaagaac agcctcgca ccttcattac gactaagatg 240
 36 taccccgacg agccggccat cgagttcatg ggctgctgct gtgtcttgcg cgtcgagact 300
 38 ggtttagcct gatccgaatc aacctctcat caatccgctc aacttggctg gtcccgagat 360
 40 gtc当地atctt acatccaaca tccgatctt cctcggttca ggacaccctt ctctcgacac 420
 42 tgc当地ctaaa tactatgttc agtctgagg aaagcatatt cgtccgctca tggtaactgct 480
 44 gatggctca ggc当地ggagg ttgc当地caa agttcagggt tgggagaagg tcgtggaggt 540
 46 tccggtaac gaggactcg caccaccaga ggtgctcaat gacaagaacc cagatatgat 600
 48 gaacatgagg tcaggaccat taacgaagg cggc当地gatc gagggacaga cgtc当地at 660
 50 cctcgctcg caacggcgtt tggctgagat cacggagatg atccatgca catcactcct 720
 52 ccacgacgac gttatcgacg cttccgagac cagacgaaac gcaccatcc gaaaccaggc 780
 54 attcgaaac aagatggcga ttttggctgg tgatttctt tgggacaggc cgtctgtgc 840
 56 attggc当地tgc当地atc cggagggtat tgagctttt gctactgtt tggcaactt 900
 58 ggtttaggga gagttcatgc agttgaaaaa tactgttgc gatgc当地tgc aggctacggc 960
 60 gacgc当地gaa acgatcgatt actatggca gaagacttac ttgaagactg cgtc当地ttgc 1020
 62 tggcaagtc tgc当地gacaa gtgc当地ttt gggtaggtat acgc当地tgcagg ttgtctgatgc 1080
 64 tgcttatgc tacggaaaggc accttggttt ggc当地tccag atcgtcgacg acatgctcga 1140
 66 ctacaccgtc tccgatccg acctcggtaa gccc当地ccggc gcagacctcc agctcggtct 1200
 68 cggc当地ccgcg cggccctct tc当地catggaa gcaccacgcc gagctcggtc ccatgatcaa 1260
 70 ggc当地aaggc tctgacccag gagacgtcga gc当地tgc当地cgc gagttggctg agaaaaggta 1320
 72 tggatggag aagacgagag cttggc当地gga ggatgtatgc cagaaggcgt tggatgcaat 1380
 74 tc当地gacgttcc cggc当地gagtc cggc当地acggaa ggcttggag cagttgacgg acaagggtt 1440
 76 gactaggta agataggaat tc当地gatcg taccggggta tc当地cttagag tc当地acctgc 1500

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78	ggcatgcaag	cttggctgtt	ttggcggatg	agagaagatt	ttcagcctga	tacagattaa	1560											
80	atcagaacgc	agaagcggtc	tgataaaaaca	gaatttcgcct	ggcggcagta	gcgcgggttgt	1620											
82	cccacctgac	cccatgccga	actcagaagt	gaa			1653											
85	<210>	SEQ ID NO:	2															
86	<211>	LENGTH:	446															
87	<212>	TYPE:	PRT															
88	<213>	ORGANISM:	Saitoella complicata															
90	<400>	SEQUENCE:	2															
92	Ser	Glu	Gln	Ile	Asp	Asn	Met	Ala	Ser	Pro	Ala	Leu	Arg	Ile	Arg	Ser		
93	1				5				10						15			
96	Ile	Ser	Ser	Arg	Ser	Ile	Ala	Ser	Leu	Arg	Ser	Val	Thr	Leu	Arg	Thr		
97						20			25						30			
100	Ala	Ser	Ala	Pro	Ser	Leu	Arg	Leu	Arg	Cys	Thr	Pro	Thr	Ser	Arg	Pro		
101						35			40						45			
104	Ser	Ser	Ser	Trp	Ala	Ala	Ala	Val	Ser	Ser	Ala	Ser	Arg	Leu	Val	Glu		
105						50			55						60			
108	Pro	Asp	Pro	Asn	Gln	Pro	Leu	Ile	Asn	Pro	Leu	Asn	Leu	Val	Gly	Pro		
109	65					70				75					80			
112	Glu	Met	Ser	Asn	Leu	Thr	Ser	Asn	Ile	Arg	Ser	Leu	Leu	Gly	Ser	Gly		
113						85				90					95			
116	His	Pro	Ser	Leu	Asp	Thr	Val	Ala	Lys	Tyr	Tyr	Val	Gln	Ser	Glu	Gly		
117						100			105						110			
120	Lys	His	Ile	Arg	Pro	Leu	Met	Val	Leu	Leu	Met	Ala	Gln	Ala	Thr	Glu		
121						115			120						125			
124	Val	Ala	Pro	Lys	Val	Gln	Gly	Trp	Glu	Lys	Val	Val	Glu	Val	Pro	Val		
125						130			135						140			
128	Asn	Glu	Gly	Leu	Ala	Pro	Pro	Glu	Val	Leu	Asn	Asp	Lys	Asn	Pro	Asp		
129	145					145			150			155			160			
132	Met	Met	Asn	Met	Arg	Ser	Gly	Pro	Leu	Thr	Lys	Asp	Gly	Glu	Ile	Glu		
133						165				170					175			
136	Gly	Gln	Thr	Ser	Asn	Ile	Leu	Ala	Ser	Gln	Arg	Arg	Leu	Ala	Glu	Ile		
137						180			185			190						
140	Thr	Glu	Met	Ile	His	Ala	Ala	Ser	Leu	Leu	His	Asp	Asp	Val	Ile	Asp		
141						195			200			205						
144	Ala	Ser	Glu	Thr	Arg	Arg	Asn	Ala	Pro	Ser	Gly	Asn	Gln	Ala	Phe	Gly		
145						210			215			220						
148	Asn	Lys	Met	Ala	Ile	Leu	Ala	Gly	Asp	Phe	Leu	Leu	Gly	Arg	Ala	Ser		
149	225					225			230			235			240			
152	Val	Ala	Leu	Ala	Arg	Leu	Arg	Asn	Pro	Glu	Val	Ile	Glu	Leu	Leu	Ala		
153						245				250					255			
156	Thr	Val	Ile	Ala	Asn	Leu	Val	Glu	Gly	Glu	Phe	Met	Gln	Leu	Lys	Asn		
157						260			265			270						
160	Thr	Val	Asp	Asp	Ala	Ile	Glu	Ala	Thr	Ala	Thr	Gln	Glu	Thr	Phe	Asp		
161						275			280			285						
164	Tyr	Tyr	Leu	Gln	Lys	Thr	Tyr	Leu	Lys	Thr	Ala	Ser	Leu	Ile	Ala	Lys		
165						290			295			300						
168	Ser	Cys	Arg	Ala	Ser	Ala	Leu	Leu	Gly	Gly	Ala	Thr	Pro	Glu	Val	Ala		
169	305					305			310			315			320			
172	Asp	Ala	Ala	Tyr	Ala	Tyr	Gly	Arg	Asn	Leu	Gly	Leu	Ala	Phe	Gln	Ile		

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173	325	330	335
176	Val Asp Asp Met Leu Asp Tyr Thr Val Ser Ala Thr Asp Leu Gly Lys		
177	340	345	350
180	Pro Ala Gly Ala Asp Leu Gln Leu Gly Leu Ala Thr Ala Pro Ala Leu		
181	355	360	365
184	Phe Ala Trp Lys His His Ala Glu Leu Gly Pro Met Ile Lys Arg Lys		
185	370	375	380
188	Phe Ser Asp Pro Gly Asp Val Glu Arg Ala Arg Glu Leu Val Glu Lys		
189	385	390	395
192	Ser Asp Gly Leu Glu Lys Thr Arg Ala Leu Ala Glu Glu Tyr Ala Gln		
193	405	410	415
196	Lys Ala Leu Asp Ala Ile Arg Thr Phe Pro Glu Ser Pro Ala Arg Lys		
197	420	425	430
200	Ala Leu Glu Gln Leu Thr Asp Lys Val Leu Thr Arg Ser Arg		
201	435	440	445

204 <210> SEQ ID NO: 3

205 <211> LENGTH: 24

206 <212> TYPE: DNA

207 <213> ORGANISM: Artificial Sequence

209 <220> FEATURE:

210 <223> OTHER INFORMATION: Primer DPS-1

213 <220> FEATURE:

214 <221> NAME/KEY: misc_feature

215 <222> LOCATION: (10)..(10)

216 <223> OTHER INFORMATION: n stands for g, a, t, or c

218 <220> FEATURE:

219 <221> NAME/KEY: misc_feature

220 <222> LOCATION: (13)..(13)

221 <223> OTHER INFORMATION: n stands for g, a, t, or c

223 <400> SEQUENCE: 3

W--> 224 aaggatccn ytnccaygagc aygt

24

227 <210> SEQ ID NO: 4

228 <211> LENGTH: 17

229 <212> TYPE: DNA

230 <213> ORGANISM: Artificial Sequence

232 <220> FEATURE:

233 <223> OTHER INFORMATION: Primer DPS-1 1AS

236 <220> FEATURE:

237 <221> NAME/KEY: misc_feature

238 <222> LOCATION: (6)..(6)

239 <223> OTHER INFORMATION: n stands for g, a, t, or c

241 <220> FEATURE:

242 <221> NAME/KEY: misc_feature

243 <222> LOCATION: (15)..(15)

244 <223> OTHER INFORMATION: n stands for g, a, t, or c

246 <400> SEQUENCE: 4

W--> 247 arytgnadra aytcncc

17

250 <210> SEQ ID NO: 5

251 <211> LENGTH: 21

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Input Set : A:\21581-265.seq.V3.ST25.txt
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252 <212> TYPE: DNA
253 <213> ORGANISM: Artificial Sequence
255 <220> FEATURE:
256 <223> OTHER INFORMATION: Primer Sa-1S
258 <400> SEQUENCE: 5
259 gagaccagac gaaacgcacc a 21
262 <210> SEQ ID NO: 6
263 <211> LENGTH: 21
264 <212> TYPE: DNA
265 <213> ORGANISM: Artificial Sequence
267 <220> FEATURE:
268 <223> OTHER INFORMATION: Primer Sa-2AS
270 <400> SEQUENCE: 6
271 tggtgcgtt cgtctggtct c 21
274 <210> SEQ ID NO: 7
275 <211> LENGTH: 26
276 <212> TYPE: DNA
277 <213> ORGANISM: Artificial Sequence
279 <220> FEATURE:
280 <223> OTHER INFORMATION: Primer Sa-N1
282 <400> SEQUENCE: 7
283 aacatatggc ctcaccagca ctgcgg 26
286 <210> SEQ ID NO: 8
287 <211> LENGTH: 29
288 <212> TYPE: DNA
289 <213> ORGANISM: Artificial Sequence
291 <220> FEATURE:
292 <223> OTHER INFORMATION: Primer Sa-C
294 <400> SEQUENCE: 8
295 aagaattcct atcttgacct agtcaaacac 29
298 <210> SEQ ID NO: 9
299 <211> LENGTH: 8
300 <212> TYPE: PRT
301 <213> ORGANISM: Saitoella complicata
303 <400> SEQUENCE: 9
305 Gly Asp Phe Leu Leu Gly Arg Ala
306 1 5

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 12/06/2003
PATENT APPLICATION: US/09/830,111E TIME: 10:42:20

Input Set : A:\21581-265.seq.V3.ST25.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 10,13

Seq#:4; N Pos. 6,15